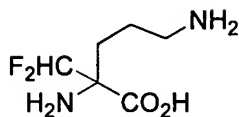


What is claimed is:

1. A process for the preparation of a compound of the formula

1

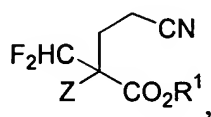


the process comprising:

- providing an intermediate compound comprising fluorine and a nitrile moiety;
- and
- selectively reducing said nitrile moiety to form an amine moiety.

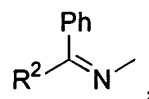
2. The process of Claim 1, wherein said intermediate compound is:

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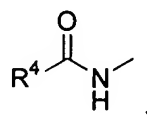


wherein R¹ is linear or branched C₁ to C₄ alkyl and Z is

- (i) -NH₂ or
- (ii) a moiety selected from the group consisting of

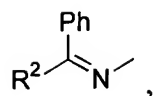


wherein R² is hydrogen, linear or branched C₁ to C₄ alkyl or aryl, and



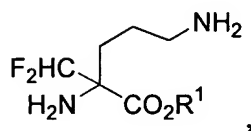
wherein R⁴ is linear or branched C₁ to C₄ alkyl, alkoxy, or aryl.

3. The process of Claim 2, wherein Z is

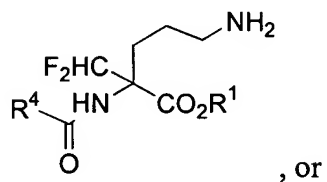


further comprising hydrolyzing the intermediate compound to produce a compound having one of the following formulas

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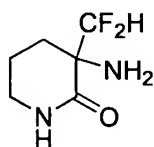


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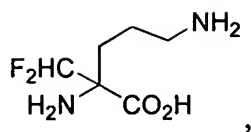
, or

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4. The process of Claim 1, wherein selectively reducing said nitrile moiety to form an amine moiety produces a compound comprising an ester or amide moiety.
5. The process of Claim 4 further comprising hydrolyzing the compound comprising an ester or amide moiety to form the compound of formula 1.
6. A process for the preparation of a compound of the formula

1



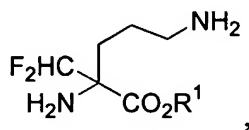
the process comprising:

providing an intermediate compound comprising fluorine and a moiety selected from the group consisting of ester and amide; and

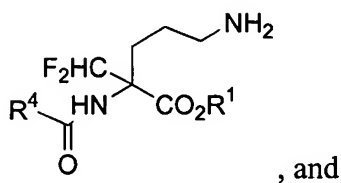
hydrolyzing said moiety to form the compound of formula 1.

7. The process of Claim 6 wherein said intermediate compound contains at most one Schiff's base.
8. The process of Claim 6 wherein said moiety is a lactam.
9. The process of Claim 6 wherein said intermediate compound has a formula selected from the group consisting of

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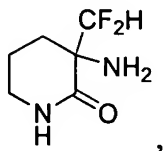


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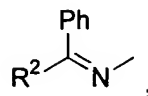
, and

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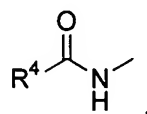


wherein R¹ is linear or branched C₁ to C₄ alkyl and Z is

(ii) a moiety selected from the group consisting of



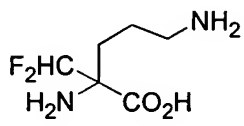
wherein R^2 is hydrogen, linear or branched C_1 to C_4 alkyl or aryl, and



wherein R^4 is linear or branched C_1 to C_4 alkyl, alkoxy, or aryl.

10. A process for the preparation of a compound of the formula

1



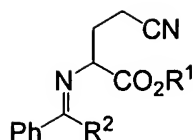
the process comprising:

providing an intermediate compound comprising fluorine and a nitrile moiety;

selectively reducing said intermediate compound to form a compound comprising an amine moiety and a second moiety selected from the group consisting of: ester and amide;

hydrolyzing said second moiety to form the compound of formula 1.

11. The process of Claim 10 wherein said second moiety is a lactam.
12. A process for the preparation of α -difluoromethylornithine, the process comprising: treating a compound with a strong base at a temperature of about $-35^\circ C$ to about $25^\circ C$.
13. The process of Claim 12 wherein the compound is a Schiff's base.
14. The process of Claim 13 wherein the compound is an alkyl4-cyanobutanoate.
15. The process of Claim 14 wherein the compound has the formula

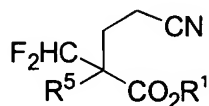


wherein R^1 is C_1 to C_4 linear or branched alkyl and R^2 is hydrogen, C_1 to C_4 linear or branched alkyl, or aryl.

16. The process of Claim 12 wherein the strong base is an alkali metal alkoxide, alkali metal hydride, or alkali metal amide.

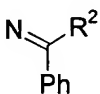
17. The process of Claim 16 wherein the strong base is a sodium alkoxide or a potassium alkoxide.

18. A compound of the formula

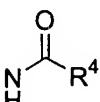


wherein R^1 is linear or branched C_1 to C_4 alkyl; and

wherein R^5 is:

(a) , wherein R^2 is hydrogen, linear or branched C_1 to C_4 alkyl or aryl;

(b) NH_2 ; or

(c) , wherein R^4 is linear or branched C_1 to C_4 alkyl, alkoxy or aryl.

19. The compound of Claim 18 wherein R^1 is selected from the group consisting of methyl, ethyl, and t-butyl.